

PATENT
P53821CIN THE CLAIMS

Please add claims 85 through 90, as follows:

*electd
-W/D-*

1 --85. An electromechanical lock cylinder, comprising:
2 an outer shell having a bore formed therein and a cavity extending from the bore into the
3 shell;
4 a barrel disposed within the bore in the shell and being rotatable relative thereto;
5 a side bar cooperating between the shell and the barrel for selectively permitting and blocking
6 rotation of the barrel with respect to the shell, the side bar having a first portion engaging the barrel
7 and a second portion removably received in the cavity in the shell, the side bar being movable
8 relative to the barrel;
9 wherein at least one electromechanical locking member is disposed within the barrel and is
10 positionable in a barrel blocking position which blocks rotation of the barrel with respect to the shell,
11 and also is positionable in a non-barrel blocking position which permits the side bar to be moved
12 relative to the cavity in the shell to rotate the barrel with respect to the shell;
13 an electronically powered drive mechanism located within the barrel and cooperating with
14 the electromechanical locking member to selectively move the locking member from the barrel
15 blocking position to the non-barrel blocking position in which the side bar moves out of the cavity
16 and engages the locking member to rotate the barrel and operate the lock; and
17 control means for activating the electronically powered drive mechanism in response to an
18 authorized attempt to operate the lock cylinder.

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1 --86. The lock cylinder of claim 85, further comprised of:

2 said drive mechanism comprising an electrical coil moving said locking member to
3 reciprocate said locking member between said non-barrel blocking position and said barrel blocking
4 position in response to activation by said control means; and

5 said locking member bearing a circumferential surface blocking movement of said side bar
6 while said locking member is in said barrel blocking position, and accommodating said radial
7 movement while said distal member is in said non-barrel blocking position.

1 --87. The lock cylinder of claim 85, further comprised of:

2 said drive mechanism comprising an electrical coil moving said locking member to rotate
3 said locking member between said non-barrel blocking position and said barrel blocking position
4 in response to activation by said control means; and

5 said locking member bearing an external feature blocking movement of said side bar while
6 said locking member is in said barrel blocking position, and accommodating said radial movement
7 while said distal member is in said non-barrel blocking position.

1 --88. A lock cylinder according to claim 85, wherein the first portion of the side bar is an
2 outer edge and the second portion is an opposite inner edge, and when the at least one locking
3 member is in said barrel blocking position the outer edge of the side bar is received in the cavity
4 formed in the shell, and wherein the at least one locking member has a groove which receives the

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inner edge of the side bar when the at least one locking member is in said non-barrel blocking position.

--89. A rotatable lock barrel for insertion into a lock cylinder having a bore formed therein, the barrel comprising:

an elongated, generally cylindrically shaped barrel member having an exterior configured for receipt in a bore of a lock cylinder and an interior containing an electromechanical locking member, the barrel member having a recess formed therein;

wherein the locking member is disposed in the recess of the barrel member and is substantially entirely contained within the barrel member, the locking member including a groove and the locking member being movable to a position in which the groove of the locking members is aligned;

the recess in said barrel member being configured to receive at least a portion of a movable side bar of a lock cylinder to permit the side bar to move into and out of engagement with the groove of the locking member for selectively permitting and blocking rotation of the barrel member with respect to a lock cylinder when positioned therein;

an electronically powered drive mechanism located within the barrel member for moving the electromechanical locking member to a position in which the groove of the locking member is aligned.

--90. A process of retrofitting a mechanical cylinder lock to form an electromechanical

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2 cylinder lock, the process comprising steps of:

3 providing a mechanical cylinder lock including an outer shell with a bore, a first rotatable
4 barrel located in the bore, and a side bar for preventing and permitting rotation of the barrel within
5 the bore in the shell;

6 removing the first barrel from the shell;

7 providing an electronically powered rotatable barrel having an exterior adapted to
8 substantially correspond to the bore in the shell, and including:

9 at least one electromechanical locking member disposed in the barrel, the electromechanical
10 locking member being positionable to permit the side bar to engage the locking member in a non-
11 barrel blocking position which permits the barrel to rotate with respect to the shell, and the
12 electromechanical locking member also being positionable in a barrel blocking position which
13 blocks rotation of the barrel with respect to the shell; and

14 an electronically powered drive mechanism cooperating with the electromechanical locking
15 member to selectively move the locking member from the barrel blocking position to the non-barrel
16 blocking position in which the side bar engages the locking member to rotate the barrel and operate
17 the lock; and

18 securing the electronically powered rotatable barrel in the bore in the shell to form an
19 electromechanical cylinder lock, the lock including control means carried by at least one of the
20 barrel and bore for energizing the electronically powered drive mechanism in response to an
21 authorized attempt to open the lock.